Chapter 1

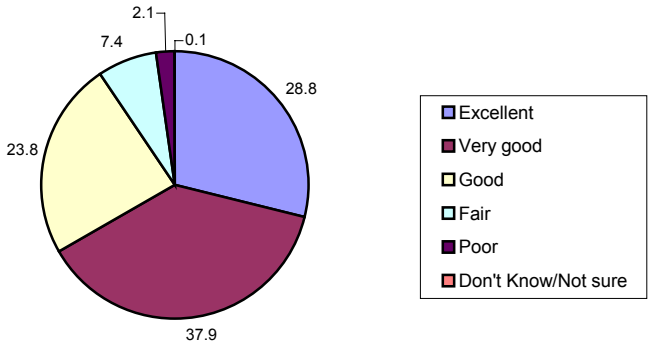
Health-Related Quality-of -Life

To evaluate the outcomes of interventions and the need for health services, questions regarding general health-related quality of life were asked. These questions try to identify how individuals perceive their own health by describing how well they function physically, mentally, and socially during their day to day activities. These questions are important in that they can indicate dysfunction and disability not measured in standard morbidity and mortality data. Participants were asked: 1) whether their health was generally excellent, very good, fair, or poor; 2) how many days during the previous 30 days their physical health was not good because injury or illness; 3) how many days during the previous 30 days their mental health was not good because of stress, depression, or problems with emotions; and 4) how many days during the previous 30 days their physical and mental health prevented them from performing usual activities, such as self care, work, or recreation. Respondents who reported " Fair" or "Poor" to the question are considered at risk.

General health

Overall, 90.5 percent (95% CI, 89%-92%) of the adult population in Lancaster County reported themselves to be in excellent to good health in the 2000 survey. Of these, 28.8 percent (95% CI, 26.4%-31.2%) said it was "excellent," 37.9 percent (95% CI, 35.3%-40.4%) expressed "very good," 23.8 percent (95% CI, 21.6%- 26%) mentioned "good," and 9.5 percent (95% CI, 8%-11%) reported " fair" or "poor" (Fig.1).

Fig.1: Self-Reported Health Status

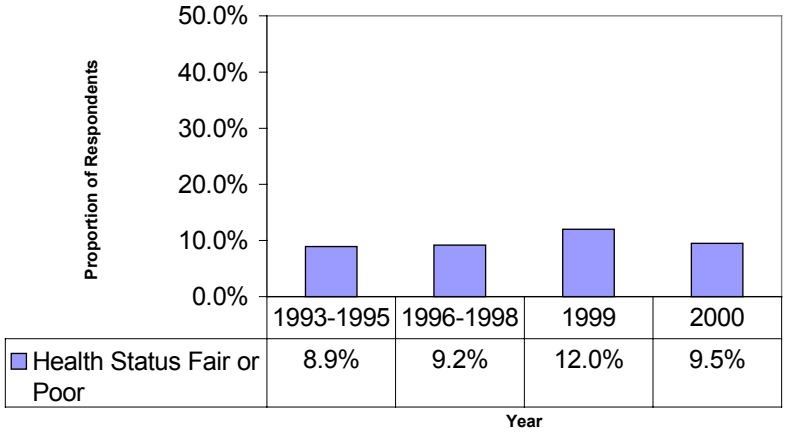


Prevalence and Trend

Respondents reporting their health status from "good" to "excellent" have not changed significantly from the previous surveys (Table 1). However, respondents rating their health as fair or poor showed a fluctuating trend over time (Fig.2).

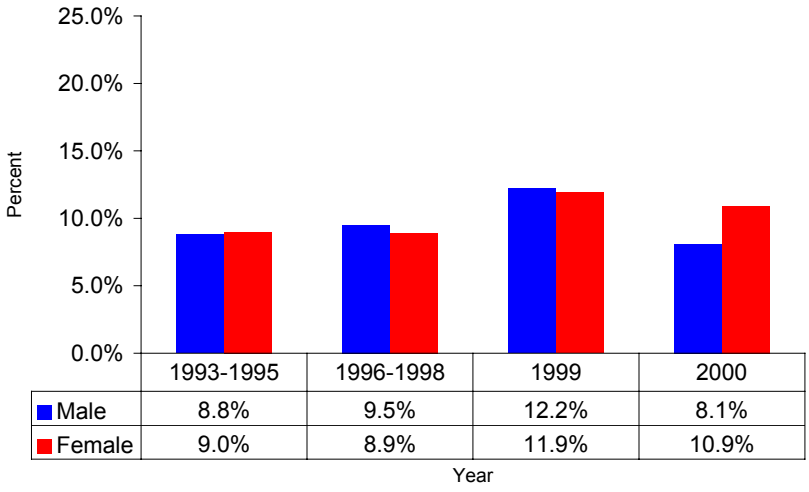
Table 1: Self Reported Health Status				
	1993-1995	**1996-1998**	**1999**	**2000**
Excellent	26.4%	24.7%	21.9%	28.8%
Very good	40.6%	38.9%	37.5%	37.9%
Good	24.0%	26.9%	28.1%	23.8%
Fair	6.8%	7.2%	9.4%	7.4%
Poor	2.1%	2%	2.6%	2.1%
Don't Know/Not sure	0.2%	0.2%	0.5%	0.1%

Fig. 2: Trend in Health Status Fair or Poor



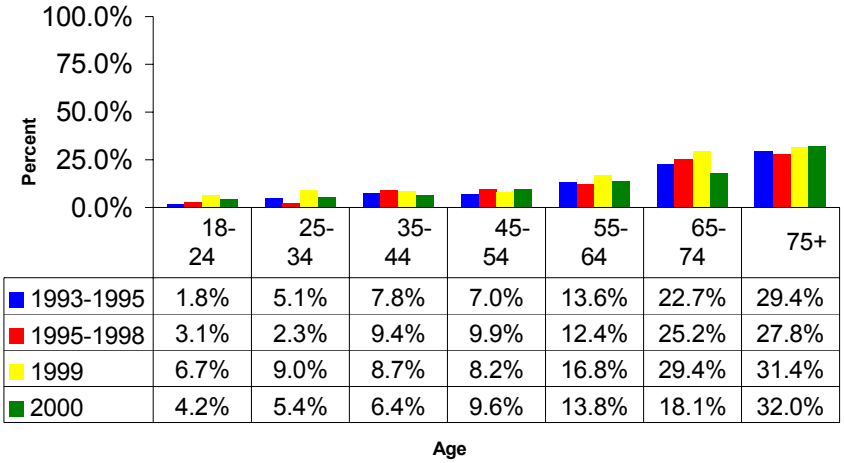
The response rate indicating fair or poor health did not vary much by respondent's gender (Fig.3a). Approximately eight percent of men and 11 percent of women considered their health status as fair or poor in 2000. The proportion of respondents reporting fair or poor

Fig.3a: Self Reported Health Status "Fair or Poor" by Gender



health increased with advancing age (Fig.3b). In 2000, only 4.2 percent of adults aged 18-24 years stated their health was fair or poor; in contrast 18 percent of adults of aged 65-75 and nearly one-third of adults (32%) aged 75 years and older reported their health status was fair or poor.

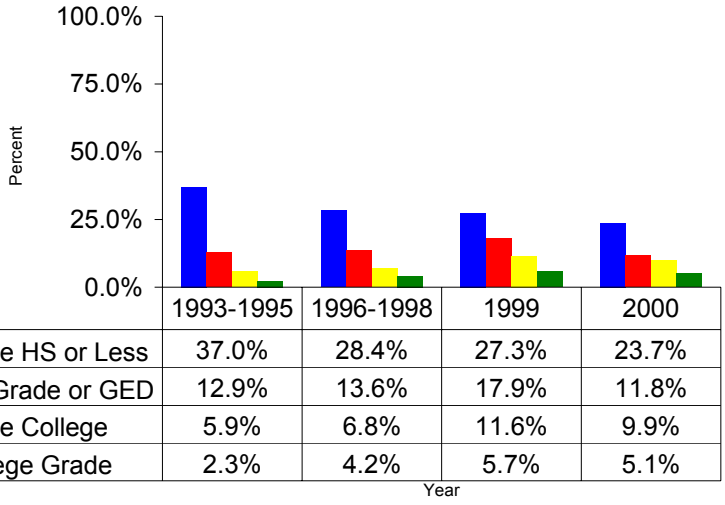
Fig.3b: Proportion of Respondent Reported 'Fair" or "Poor" Health by Age Group



	18-24	25-34	35-44	45-54	55-64	65-74	75+
1993-1995	1.8%	5.1%	7.8%	7.0%	13.6%	22.7%	29.4%
1995-1998	3.1%	2.3%	9.4%	9.9%	12.4%	25.2%	27.8%
1999	6.7%	9.0%	8.7%	8.2%	16.8%	29.4%	31.4%
2000	4.2%	5.4%	6.4%	9.6%	13.8%	18.1%	32.0%

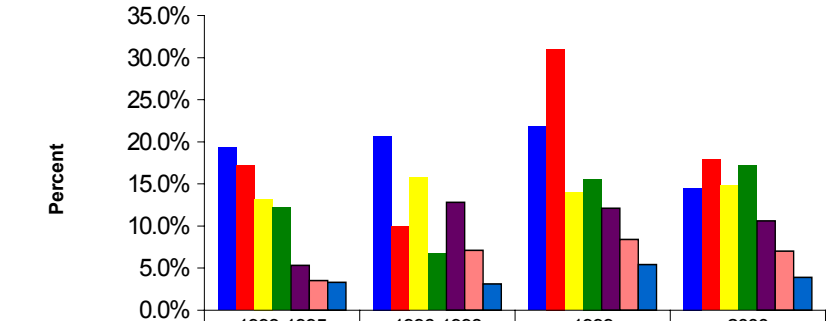
A similar pattern of response was observed in respondents with different levels of household income and education. The prevalence of "fair or poor" health status decreased as the level of education or income increased (Fig.4a, 4b). Five percent of adult respondents completing college grade and 2.1 percent with income of $75,000 or more rated their health status "fair or poor" compared to 23.7 percent of adults with an education level of high school or less, and 14.5 percent of adults with annual income of less than $10,000.

Fig.4a: Health Status "Fair or Poor" by Education Level



	1993-1995	1996-1998	1999	2000
Some HS or Less	37.0%	28.4%	27.3%	23.7%
HS Grade or GED	12.9%	13.6%	17.9%	11.8%
Some College	5.9%	6.8%	11.6%	9.9%
College Grade	2.3%	4.2%	5.7%	5.1%

Fig.4b: Health Status "Fair or Poor" by Income

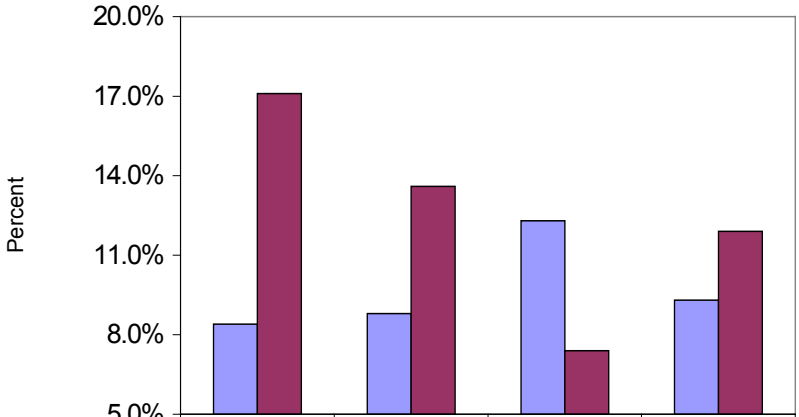


	1993-1995	1996-1998	1999	2000
Less than $10,000	19.3%	20.7%	21.8%	14.5%
$10,000 - $15,000	17.2%	10.0%	31.0%	17.9%
$15,000 - $20,000	13.2%	15.8%	14.0%	14.8%
$20,000 - $25,000	12.2%	6.7%	15.6%	17.2%
$25,000 - $35,000	5.3%	12.8%	12.1%	10.6%
$35,000 - $50,000	3.5%	7.1%	8.4%	7.0%
$50,000+	3.3%	3.1%	5.4%	3.9%

Year

A higher Proportion of non-white (11.9%) respondents considered their health status to be fair or poor than white respondents (9.3%). All survey intervals except the 1999 survey showed a similar trend (Fig.5).

Fig.5: Health Status Fair or Poor by Race



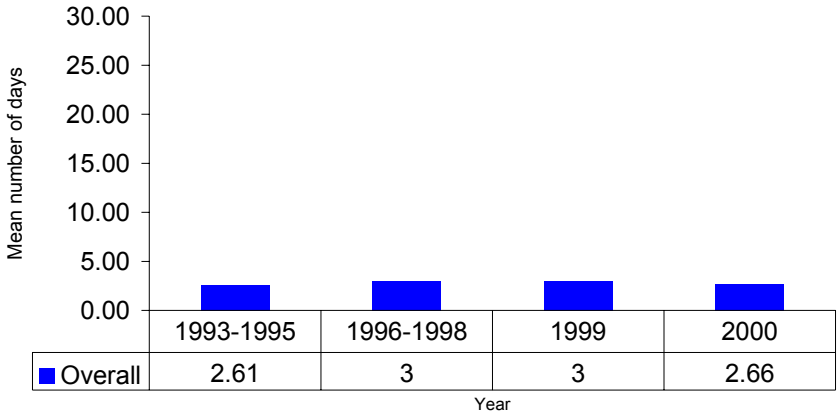
	1993-1995	1996-1998	1999	2000
White	8.4%	8.8%	12.3%	9.3%
Non-White	17.1%	13.6%	7.4%	11.9%

Year

Physical Health during the past 30 days

Lancaster adults aged 18 and over reported an average of 2.7 days (95% CI, 2.29- 3.03) in last 30 days that they did not have good physical health, according to the 2000 survey. The mean numbers days that were reported as "not good physical health" days has not changed from previous years (Fig.6).

Fig.6: Mean Number of Days During Past 30 Days When Physical Health Was Not Good



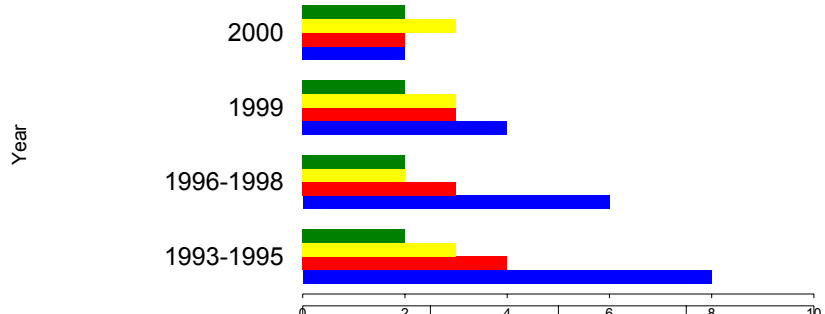
Women reported higher numbers of "not good physical health days" (3 days) than men (2 days). Of the other characteristics studied, the mean numbers of "physical health not good" during the 30 days preceding the survey was highest for people with annual house hold incomes of less than $10,000 (5 days) and in the age group of 75 years and older (6 days, Table 2).

Table 2: Current Physical Health Not Good

Years	1993-1995	1996-1998	1999	2000
Annual Household Income				
Less than $10,000	4	4	4	5
$10,000 - $15,000	4	3	6	4
$15,000 - $20,000	3	3	3	3
$20,000 - $25,000	3	1	3	5
$25,000 - $35,000	2	3	2	2
$35,000 - $50,000	2	2	3	2
$50,000+	1	2	1	1
Age Group				
18-24	2	2	2	2
25-34	2	2	2	2
35-44	2	2	2	1
45-54	3	3	2	3
55-64	4	3	3	3
65-74	5	5	6	3
75+	8	7	7	6

In 2000, the mean number of "not good physical health days" did not vary due to differences in respondents education level. However, in previous years, it was lowest for people with college education (2 days) and gradually increased as the educational level decreased (Fig.7). Non-white races (3 days) reported more "not good physical health" days than whites (2 days).

Fig.7: Mean Number of Physical Health "Not Good" by Education



	1993-1995	1996-1998	1999	2000
College Grade	2	2	2	2
Some College	3	2	3	3
HS Grade or GED	4	3	3	2
Some HS or Less	8	6	4	2

Mean number of days

Mental Health in past 30 days

Mental health also is an important indicator of quality of life. The Center for Disease Control and Prevention calculates "Good health days" by subtracting the sum of "not good" physical health days and "not good" mental health days from 30 days.

Lancaster County adult respondents reported that their mental health was not good an average of 2 days (95% CI, 1.69-2.31) in the past 30 days prior to the survey.

Prevalence and Trend

Like physical health, the average number of "not good" mental health days has gone down from the previous survey years (Fig.8a). Similar to responses in which physical health was reported as "not good physical health," the average number of not having good mental health days decreased as the income, age, and education level increased (Fig.8b, 8c). Both men and women reported same number of average days of not having good mental health (2 days). Although the average number of not good mental health days was higher (3 days) in non-white respondents than white respondents (2 days) in 2000, past seven-year surveys showed an inconsistent trend (Table 3).

Fig.8a: Trend in Mean Numbers of "Mental Health Not Good" in Past 30 Days

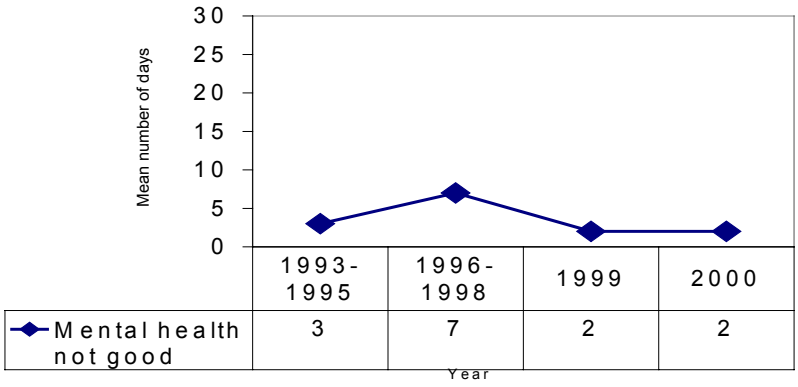


Fig.8b: Mental Health Not Good by Education Level

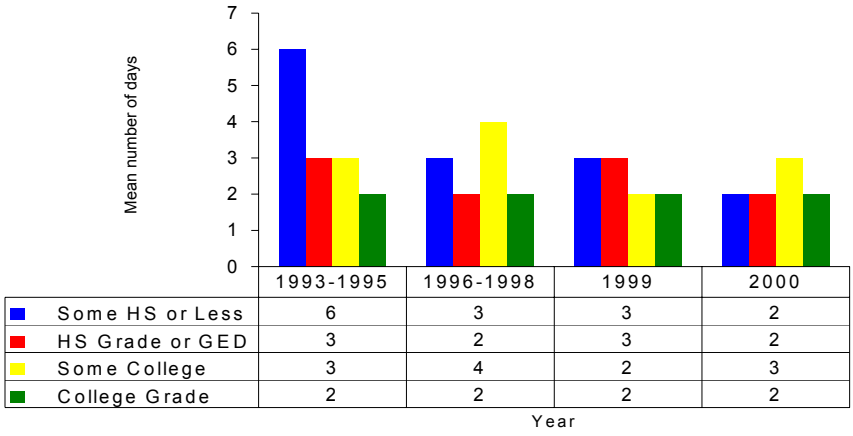
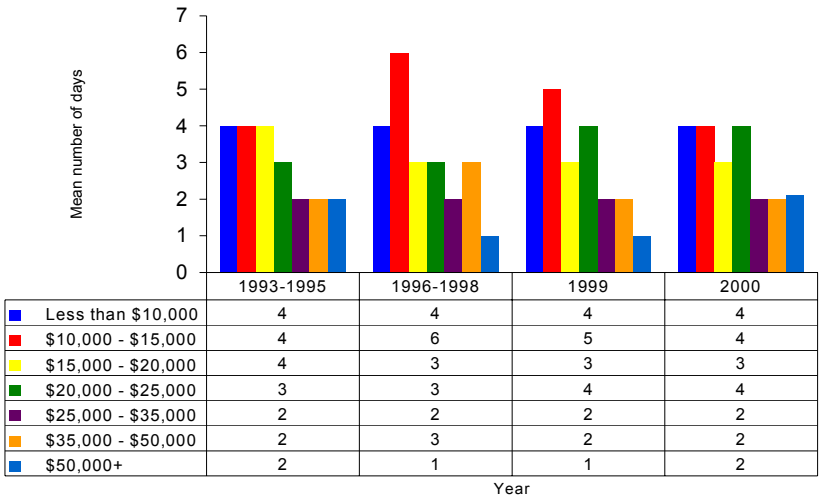


Fig.8c: Trend in Mental Health Not Good by Income



	1993-1995	1996-1998	1999	2000
Less than $10,000	4	4	4	4
$10,000 - $15,000	4	6	5	4
$15,000 - $20,000	4	3	3	3
$20,000 - $25,000	3	3	4	4
$25,000 - $35,000	2	2	2	2
$35,000 - $50,000	2	3	2	2
$50,000+	2	1	1	2

Table 3: Average number of days in past 30 days "Mental health was not good"

Years	**1993-1995**	**1996-1998**	**1999**	**2000**
SEX				
Male	3	2	2	2
Female	3	3	3	2
Race				
White	3	3	2	2
Non-White	2	4	3	3

Activity Limitation

Disability is a major public health problem in the United States; one that results in a reduction in the quality of life and an increase in dependence on the health-care system. About 35 million Americans have disabling conditions that interfere with their life activities. Measurable aspects of the prevalence of disability in a given population are reported as limitations in activity caused by poor physical and mental health, injuries, and impairments. BRFSS respondents who reported one or more days of "not good" physical and mental health were asked a follow-up question about the number of days in which their activity was limited.

BRFSS respondents reported in 2000, an average of 3 days (95% CI, 2.6-3.6), when they could not do their usual activities, such as self-care, work, or recreation because of the poor physical or mental health in the past 30 days.

Prevalence and Trend

The mean number of limited activity days dropped in 2000 by 1 day as compared to 1996-1998 and 1999 periods (Fig.9).

Fig.9: Average Number of Days Activity Was Limited by Poor Physical or Mental Health

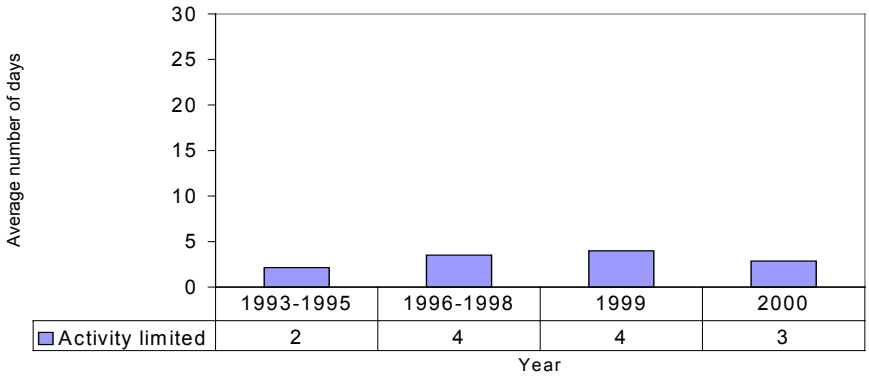
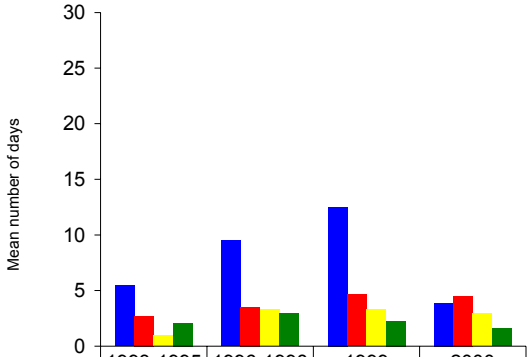


Table 4 shows limited activity days by respondent's gender, age, and race. In a way similar to the other two questions regarding quality of life, people with increasing age had higher average number of limited activity days: 9 days for age 75 and over compared with 2 days for 18-24 year older. People with lower income and lesser education level had more numbers of activity limitation days due to not good physical and mental health (Fig.10a, 10b).

Table 4: Poor Physical/Mental Health Affected Activity

Year	**1993-1995**	**1996-1998**	**1999**	**2000**
Sex				
Male	2	5	3	2
Feamle	2	3	4	4
Race				
White	2	4	3	3
Non-White	2	2	8	1
Age				
18-24	1	4	2	2
25-34	2	3	2	2
35-44	2	3	3	2
45-54	2	3	3	2
55-64	4	2	6	5
65-74	4	4	11	4
75+	6	9	9	9

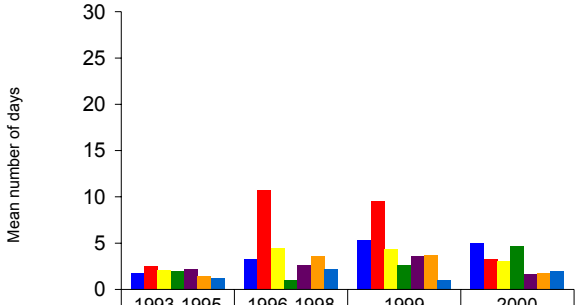
Fig.10a: Poor Physical/Mental Health Limited Activity by Education



	1993-1995	1996-1998	1999	2000
Some HS or Less	5	10	13	4
HS Grade or GED	3	4	5	4
Some College	1	3	3	3
College Grade	2	3	2	2

Year

Fig.10b: Poor Physical/Mental Health Limited Activity by Income



	1993-1995	1996-1998	1999	2000
Less than $10,000	2	3	5	5
$10,000 - $15,000	2	11	10	3
$15,000 - $20,000	2	5	4	3
$20,000 - $25,000	2	1	3	5
$25,000 - $35,000	2	3	4	2
$35,000 - $50,000	1	4	4	2
$50,000+	1	2	1	2

Year